## ABSTRACT OF THE DISCLOSURE

A frequency synthesiser according to the direct digital synthesis method is provided. The frequency synthesiser includes a phase accumulator for the cyclical incrementation of a phase signal by a phase increment M present at the input of the phase accumulator, a memory unit with a table of sine-function values stored in its memory cells for the determination of sine-function values corresponding to phase values of the phase signal, a digital-to-analog converter for the conversion of time-discrete sine-function values into a quasi-analog sinusoidal time function and an anti-aliasing low-pass filter for smoothing the quasi-analog sinusoidal time function. The frequency synthesiser additionally contains an adder, which is connected between the memory unit and the digital-to-analog converter and which superimposes a non-periodic signal over the time-discrete sine-function values.